

Notice of Allowability

Application No.

10/757,788

Examiner

Russell Frejd

Applicant(s)

GOODING ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment and RCE received 31 August 2007.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Russell Frejd
RUSSELL FREJD
PRIMARY EXAMINER

In re Application of: Gooding et al.

Allowance of Application # 11/

1. The following communication is in response to Applicant's amendment and RCE received 31-August-2007. Claims 1-16 are pending in the application.

Examiner's Amendment

2. An Examiner's Amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 C.F.R. 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the Issue Fee. Authorization for this Examiner's Amendment was given by James Nock (Reg. No. 42,937) on 27-September-2007.

2.1 In the Claims:

Claim 7	Line 1	Insert --The-- before "apparatus".
	Line 4	Change "the source type" to --the one or more source type--.
	Line 6	Change "each processor" to --each of the plurality of processor--.
	Line 7	Change "multiplexer" to --multiplexers--.
	Line 7	Change "more receiving" to --more of the at least one receiving--.
	Line 8	Change "the processor" to --the plurality of processor--.
Claim 8	Line 2	Change "the source type multiplexer" to --the one or more source type multiplexers--.
	Line 3	Change "processor selector multiplexer" to --plurality of processor selector multiplexers--.

In re Application of: Gooding et al.

Claim 9	Line 8	Change "one or more of the signal wires" to --one or more of the plurality of signal wires--.
Claim 12	Line 2	Change "more spare signal wires" to --more predefined spare signal wires--.
Claim 13	Line 1	Change "tangible" to --tangible, recordable-type--.
	Line 5	Change "coupled to a" to --coupled to--.
	Line 9	Change "being configured to perform" to --causing the computer to execute--.
	Line 11	Change "the signal wires" to --the plurality of regular signal wires--.
	Line 15	Change "the signal wires" to --the plurality of regular signal wires--.
Claim 16	Line 2	Change "more spare signal" to --more predefined spare signal--.

Reasons for Allowance

3. The following is an Examiner's Statement of Reasons for the indication of allowable subject matter.

3.1 The improvement of the present invention comprises, in various embodiments, the automatic reconfiguration of faulty signal wires in an emulation system having one or more source emulation processors coupled to one or more receiving emulation processors by a set of emulation cables, each emulation cable having a plurality of signal wires comprised of a plurality of regular signal wires and one or more predefined spare signal wires. In particular, the invention uses a runtime control program residing on a host workstation coupled to the emulation system, to reconfigure the emulation system by reassigning any signal wires having a

In re Application of: Gooding et al.

fault to one or more predefined spare signal wires. This patentable distinction is included in each of the independent claims, nos. 1, 9 and 13.

3.2 The instant application is directed to a non-obvious improvement over the invention described in the dissertation authored by Yu, entitled *Fault Tolerance in Adaptive Real-Time Computing Systems*, which teaches a real-time computing system in which failures can result in data corruption and lower performance, leading to catastrophic failures. Yu performs the detection and reconfiguration entirely within the real-time computer itself, as opposed to the runtime control program residing on a host workstation coupled to the emulation system, as disclosed in the present invention.

3.3 The art of record, either individually or in combination, fails to teach, suggest, or render obvious the specific arrangement of elements in the same combination as now required by the amended claims. In view of the foregoing, the claims of the present application are found to be patentable over the prior art.

Response Guidelines

5. Any comments considered necessary by applicant **MUST** be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should clearly be labeled "Comments on Statement of Reasons for Allowance".

In re Application of: Gooding et al.

5.1 Any response to the Examiner in regard to this allowance should be

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, or the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist (571) 272-2100.

mailed to: Commissioner of Patents and Trademarks
P.O. Box 1450, Alexandria, VA 22313-1450

or faxed to: (571) 273-8300

Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA, 22314.

Date: 26-September-2007

/Russell Frejd/
Primary Examiner AU 2128

**RUSSELL FREJD
PRIMARY EXAMINER**